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(54) Title: **ELECTROCHEMICAL CELL**

(57) Abstract: An electrochemical cell comprising a cathode, an anode and an electrolyte is provide, wherein: the cathode comprises mesoporous nickel having a periodic arrangement of substantially uniformly sized pores of cross-section of the order of 10^{-8} to 10^{-9} m; and the anode comprises a mesoporous material having a periodic arrangement of substantially uniformly sized pores of cross-section of the order of 10^{-8} to 10^{-9} m and selected from: carbon, cadmium, iron, a palladium/nickel alloy, an iron/titanium alloy, palladium or a mixed metal hydride.

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